**Terminating or Repeating?** NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Convert each of the following to decimal form and then circle whether or not each is a terminating or repeating decimal.**

1. $\frac{5}{8}$ terminating

 or

 repeating

1. $\frac{7}{12}$ terminating

or

 repeating

1. $\frac{1}{3}$ terminating

or

 repeating

1. 3$\frac{1}{6}$ terminating

or

 repeating

1. $\frac{5}{9}$ terminating

or

 repeating

1. 7$\frac{1}{2}$ terminating

or

 repeating

**Use a calculator to evaluate each of the following and then determine whether or not each has a terminating or repeating decimal.**

7. $\sqrt{5}$ 8. $\sqrt{40}$ 9. $\sqrt{18}$ 10. $\sqrt{16}$

**What do you notice about the answers to #7-9. What makes #10 different?**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Is it “Rational” or “Irrational”?**

*Rational numbers* either \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 Some examples are…

*Irrational numbers* DO NOT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 Some examples are…

Write “rational” or “irrational” for each and state why.

1. 7 2. 9.8 3. 7.121212… 4. $π$

5. $\frac{4}{5}$ 6. $\sqrt{8}$ 7. $\sqrt{81}$ 8. $\sqrt[3]{8}$

9. 8.913475… 10. -17 11. $\frac{1}{3}$ 12. 5.143

13. 8.444… 14. $\sqrt{20}$ 15. -9.4317 16. $\sqrt{64}$